

FORMER NEBRASKA ORDNANCE PLANT

RESTORATION ADVISORY BOARD

December 1, 2005

Former Nebraska Ordnance Plant Restoration Advisory Board Meeting December 1, 2005

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|---|------------------|
| Introductions & Administrative Items | 7:00-7:10 |
| Agenda Review | 7:10-7:15 |
| Status Update | 7:15-7:35 |
| Site Management Plan | 7:35-8:00 |
| RAB Business | 8:00-8:30 |
| Question & Answer Period | 8:30-9:00 |

Introductions

7:00-7:10

- **Corps of Engineers Kansas City District
Commander – COL Michael Rossi**
- **Army Co-Chair – Garth Anderson**
- **Restoration Advisory Board (RAB)
Members**

Introductions – Community RAB Members

ACTIVE MEMBERS

Melissa Konecky (RAB Co-Chair)

John Wageman

INACTIVE MEMBERS

Doug Druliner

Nate Morgan

Michael Mowry

LeRoy Nelson

Ross Rasmussen

Katherine Saniuk

Robert Seoles

Introductions – Agency RAB Members

Lincoln Department of Water Resources

Lincoln Water System

Lower Platte North Natural Resource District – Larry Angle

Nebraska Department of Environmental Quality

Nebraska Health and Human Services System

Nebraska National Guard

Saunders County

University of Nebraska – Lincoln, Agricultural Research and Development Center

University of Nebraska – Lincoln, Environmental Health and Safety

University of Nebraska – Office of General Counsel

US Army Corps of Engineers, Garth Anderson (RAB Co-Chair)

US Army Reserve Center

US Environmental Protection Agency, Region 7, Scott Marquess

Administrative Items

- **Meeting Ground Rules**
 - RAB and Public participation
 - Honor time limits (Start on Time/End on Time)
 - Stick to the agenda
 - Please hold your questions until the Q&A period
 - One question at a time
 - Respect others
 - No personal attacks
 - Ensure equal participation

Administrative Items

7:00-7:10

- **Meetings are being recorded**
 - **Cameras are being used to videotape this meeting**
 - **Transcriptionist is present to record this meeting**
 - **When you ask a question – you will need to state your name loudly and clearly for the transcriptionist to hear you**
 - **Please hold your questions until the Q&A period**
 - **One question at a time**

Administrative Items

7:00-7:10

- **Mead Project Mailing List**
 - In order to better share information with the community, we are trying to update our mailing list
 - If you would like to receive site information from us, please use the forms to give us your name and address
 - This information will not be shared with anyone and will only be used to mail information to you

Administrative Items

- **Mead Project Web Site**
 - <http://www.nwk.usace.army.mil/projects/mead/projectindex.html>
 - Email list. By request, we will send email notifications when new information is posted on the web site.

Agenda

- **Status Update – since the last RAB mtg**
- **Site Management Plan – current status**
- **RAB Issues**

Status Update

- **LL1 Construction Status**
- **MW-85 Geoprobe Investigation**
- **Model review comments from Saunders County**
- **GMP Recent Results**

LL1 Construction Status

- **As of Dec 1, 2005**
 - **EW-12 and 13 drilled & installed**
 - **24 new Monitoring Wells installed**
 - **8 new piezometers installed**
 - **Treatment building foundation completed**
 - **Building exterior complete**
 - **Treatment equipment installation – in progress**
 - **Pipeline trenching – nearly complete**

LL1 Construction Status



LL1 Construction Status



LL1 Construction Status



LL1 Construction Status



LL1 Construction Status

- **Remaining Work**
 - Complete installation of all treatment equipment
 - Complete building interior
 - Install process control system
 - Perform start-up testing on treatment system
- **Target – system start-up testing begin before Dec 31 2005**
- **Target – system operating at full capacity, normal operations by March 2006**

Geoprobe Investigation Results (Phase 1)

- **Purpose of Phase 1 =**
 - Investigate area around MW-85
 - Investigate eastern plume boundary
 - Investigate some portions of plume interior
 - Help plan for Phase 2 sampling in March 2006
- **Purpose of Phase 2 =**
 - Define eastern plume boundary
 - Establish locations for new permanent Monitoring Wells – to monitor effects of M.U.D. operations

Geoprobe Investigation Results (Phase 1)

- **Sampling Performed**
 - **Over 300 water samples collected from over 100 locations**
 - **Approx. 50% of the sample locations were on private property – Thank You!**
 - **Samples typically collected every 500 ft along the transect lines**
 - **Sampling work performed from Oct 10th to Nov 4th – with 7 day break in between**

Geoprobe Investigation Results (Phase 1)

- **Report being written right now – still waiting for some last few results from laboratory**
- **Sampling Results**
 - **Southern Perimeter – Transects 6, 7, 8 & 12**
 - **All results Non-Detect or below action level**
 - **Plume Interior – Transects 9, 10, 11, 13, 15 & 16**
 - **Results confirm that some areas of plume are more contaminated than others – i.e. hot spots**
 - **Results will be used to help refine the plume maps**

Geoprobe Investigation Results (Phase 1)

- **Sampling Results** (continued)
 - **Eastern Perimeter – Transects 1, 2, 3, 4, 5**
 - Results show that current plume boundary is adequate
 - Of the over 300 samples collected, only 2 show that plume boundary needs to be refined – less than 500 feet
 - These results – plus the routine Monitoring Well sampling and Buffer Zone sampling show that the current plume boundaries are still adequate

Model Review Comments From Saunders County

- **NWK received the comments during the week of Aug 22, 2005**
- **The comments are similar to previous comments from other parties**
- **NWK will revise our model next year, and these comments will be incorporated, along with all other previous comments from EPA and NDEQ**

GMP Status

- **Second & Third Quarter 2005 Sampling**
 - June 2005 results
 - Quarterly data report submitted Sep 05
 - Posted on project website
 - Sep 2005 WSW results
 - Distributed to well owners week of 28 Nov 2005
- **GMP Global Plans**
 - 2 Nov 2005: meeting to discuss outstanding EPA comments
 - 22 Nov 2005: final response letter to EPA
 - 5 Jan 2006 (Tentative): concurrence on outstanding comments; begin finalization of project plans

GMP Status

- **2004 Annual Report**
 - **11 Jul 2005: Draft report submitted to EPA & NDEQ**
 - **23 Aug 2005: Comments submitted by NDEQ**
 - **8 Nov 2005: Comments submitted by EPA**
 - **16 Dec 2005: respond to EPA & NDEQ comments and finalize 2004 Annual Report (place copy in Mead Library)**

GMP Status

- **Upcoming Activities**
 - **12 Dec 2005: Begin MW and WSW sampling for 4th Quarter 2005 GMP**
 - **5 Jan 2006: 2006 GMP Planning Meeting with EPA & NDEQ**
 - **Jan 2006: Submit 3rd Quarter (Sep) 2005 GMP quarterly data report**

Site Management Plan

- **Major Elements of Draft SMP:**
 1. On-going O&M of Treatment Systems
 2. Annual Groundwater Monitoring Program (GMP)
 3. Containment Evaluation
 4. Additional Investigations – Extent of Plume
 5. M.U.D. Baseline Sampling & Annual Monitoring
 6. Community Relations
 7. Overall Project Management
- **SMP being finalized with help from EPA & DEQ**
- **Target for SMP to be finalized by Dec 31 2005**

Site Management Plan

- **What we hear are the highest community concerns:**
 - Not enough residential well sampling
 - Not enough monitoring wells to south
 - Not enough monitoring wells to east (MUD concerns)
 - Project schedule and plans not clearly described
 - Is funding adequate for future work?
- **How these concerns are being addressed:**
 - 2005 and beyond – Increased residential sampling
 - 2005-06 – New investigations in south and east
 - 2005 - Revised SMP & budget
 - 2006 – More investigation and more monitoring wells
 - 2007 – Monitor east side before MUD operations start

Site Management Plan - 2005

- Load Line 1 Treatment System (EW-12 & 13 & air stripper) 80% complete
- Establish agreed upon technical criteria for "Containment Evaluation"
- Perform investigation sampling along Southern & Eastern plume boundaries (Phase 1)
- Sample 1 Mile Buffer Zone (2nd time)

Site Management Plan - 2006

- **Perform further (Phase 2) investigation sampling of eastern boundary - to establish locations for permanent MUD monitoring wells**
- **Install approximately 30 new clusters of monitoring wells - southern & eastern plume boundaries - bolster existing network of monitoring wells**
- **Load Line 1 Treatment System - construction complete & start normal operations**
- **Establish MUD Monitoring Network**
- **Start construction EW-11 Advanced Oxidation Process treatment system**
- **Produce updated groundwater computer model**
- **Evaluate potential vapor intrusion exposure pathway**
- **Sample 1 Mile Buffer Zone (3rd time)**

Site Management Plan - 2007

- Perform MUD Monitoring Network sampling - to establish baseline conditions prior to MUD operations start in 2008
- Complete regulatory required 5 Year Review
- Complete formal Containment Evaluation IAW the "new" criteria. Publish *Annual Remedy Performance Report*
- Finish construction of EW-11 AOP system
- Conduct more investigation inside of the plume
- Review and evaluate 1 Mile Buffer Zone sampling locations for inclusion in monitoring program

Site Management Plan - 2008

- **Update existing groundwater model**
- **Install GCW's**
- **Conduct investigation for source areas**
- **Monitor effects of M.U.D. pumping**

Site Management Plan - 2009 and Beyond

- **Monitor effects of M.U.D. pumping**
- **Possible plume interior investigations**
 - **Bedrock**
 - **DNAPL**
- **Possible pilot studies for hot spot treatment**

SMP Budget

- **Draft budget – subject to revision**
 - **FY2006 = \$4.0M**
 - **FY2007 = \$4.4M**
 - **FY2008 = \$6.5M**
 - **FY2009 = \$4.9M**
 - **FY2010 = \$4.9M**
- **Annual operating costs for O&M = \$1.9 to \$2.4M**
- **Annual sampling cost for GMP = \$600 to \$900K**
- **Investigation work = approx \$250K for each event**

SMP Budget

- **Future requirements exceed programmed amount**
- **We will continuously request funds for the additional requirements**
- **Past success in procuring additional funds – additional \$1.8M in 2005**

RAB Business

- **Operation**
 - **How to increase community membership**
 - **Format of meetings**
 - **Between meeting communication**

RAB Business

- **Future RAB Topics**
 - **What topics are of interest to the community?**
 - **Tell us what you would like us to present at future RAB meetings**

RAB Business

- **Next RAB Meeting**
 - **Tentative date: April 6, 2006**
 - **Slight shift allows us to discuss December 2005 sampling results in detail**



Questions?